

oney baked beans, cookies, cakes, pies, and breads all take on a new flavor appeal when honey is used. Honey is a basic food that is available in every grocery store. It has long been used as a spread for hot biscuits, but homemakers now find it gives a special delectable flavor in their baking.

Today you buy honey of high quality when you see "U.S. Grade A" or "U.S. Fancy" on the label. It is graded by color and absence of defects. As consumers, we may take high quality for granted, but it is very important to the producer and the processor. Look for the grade on the label.

The flavors to choose from are many. They are determined by the flowers from which the nectar is collected. The honey may be from a single floral source or it may be blended. The label will indicate the predominant floral

Honey may be purchased in various forms, including comb, chunk, fine-textured, and liquid. Only the fine-textured and liquid forms are recommended for use in baking. Honey may be purchased in various sized containers.

This circular has been prepared by the authors after years of research by the Kansas Agricultural Experiment Station and the U.S.D.A. It has been developed to bring you the latest ideas of how you can improve your baked products. The recipes included in this circular should insure fine quality baked products with special flavor appeal.

#### Mildred Walker

Extension Specialist in Consumer Information

#### **AUTHORS**

John A. Johnson, Professor, Flour and Feed Milling Industries, Kansas State University

Donald Miller, Instructor, Flour and Feed Milling Industries,

Kansas State University
Jonathan W. White, Jr., Head, Eastern Utilization Division, ARS, USDA, Philadelphia, Pennsylvania

Contribution No. 307, Department of Flour and Feed Milling Industries, Kansas Agricultural Experiment Station, Manhattan.

#### **ACKNOWLEDGMENTS**

Loren B. Smith, Research Assistant, Kansas State University, for research on baked products, and

Miss Gertrude Allen, Foods and Nutrition Specialist, Extension Service, Kansas State University, and
Miss Gwendolyn Tinklin, Associate Professor, Foods and Nutrition, Kansas State University, for their review of the manuscript.

A bulletin giving large quantity recipes for the use of honey in commercial baked products has been prepared by the Kansas Agricultural Experiment Station. Order BULLETIN NO. 441, HONEY IMPROVES BAKED PRODUCTS, from Distribution Center, Umberger Hall, Kansas State University

#### EXTENSION SERVICE, KANSAS STATE UNIVERSITY

MANHATTAN, KANSAS

Circular 281

December 1959

Co-operative Extension Work in Agriculture and Home Economics, Kansas State University of Agriculture and Applied Science and the United States Department of Agriculture, Acts of May 8 and June 30, 1914. Harold E. Jones, Director.

### Honey in Your Baking

Honey was the first sweetening agent known to man. Long before man developed means of extracting sugars from plants, bees collected the nectar from flowers and supplied man with a stable and necessary dietary item. Although man in his quest for better living developed and refined dietary sources of sugar, honey has maintained a respected place among the food items. Because of its unique properties and delectable flavors, honey has filled a useful place in man's bill of fare for over five thousand years.

As well as producing honey and wax, the bees play a very important role in our agricultural economy. They help pollinate many of our agricultural crops, particularly alfalfa and clover.

Honey may be used in almost

any food product that requires sweetening. It is, primarily, a sugar solution or syrup consisting of about 80 to 85% sugar and 15 to 18.6% moisture. Its sugars are readily digested and provide a good source of quick energy. Honey also contributes delectable flavor to foods.

#### For Baked Products

Honey is a natural product and may be expected to vary slightly in composition, depending primarily on its floral source. There are variations in acidity, amount of sugar solids, moisture, flavor, and color.

Of these, only flavor and color variations dictate how successful the honey will be in baked products. Flavor contributed by honey to baked goods can be desirable or det-

rimental, depending on the floral source and personal preferences.

Although there are many hundreds of different types of honey, each with its characteristic flavor, twenty or thirty main floral types account for most of the honey sold in the United States. Honey tastes vary over the country, with different sections having their favorite kinds. The clover types, however, probably come closest to the concept of a basic honey. Blends with minor types give locally preferred flavors.

The average moisture content of honey is 17 per cent. This is used to account for moisture adjustments in recipes for baked goods. Recipes in this circular have been adjusted for this moisture.

Honey contains a high percentage of dextrose which may cause excessive browning during baking in such products as cake and cookies. With cookies, some browning is desirable, as it lends a distinct flavor. In white cakes, the brown color and associated flavors are not desirable. In the recipes which follow, the browning reaction is controlled by the amount of honey used or by the leavening agent or special agents that control acidity of the batter and cake crumb.

#### Treating Raw Honey

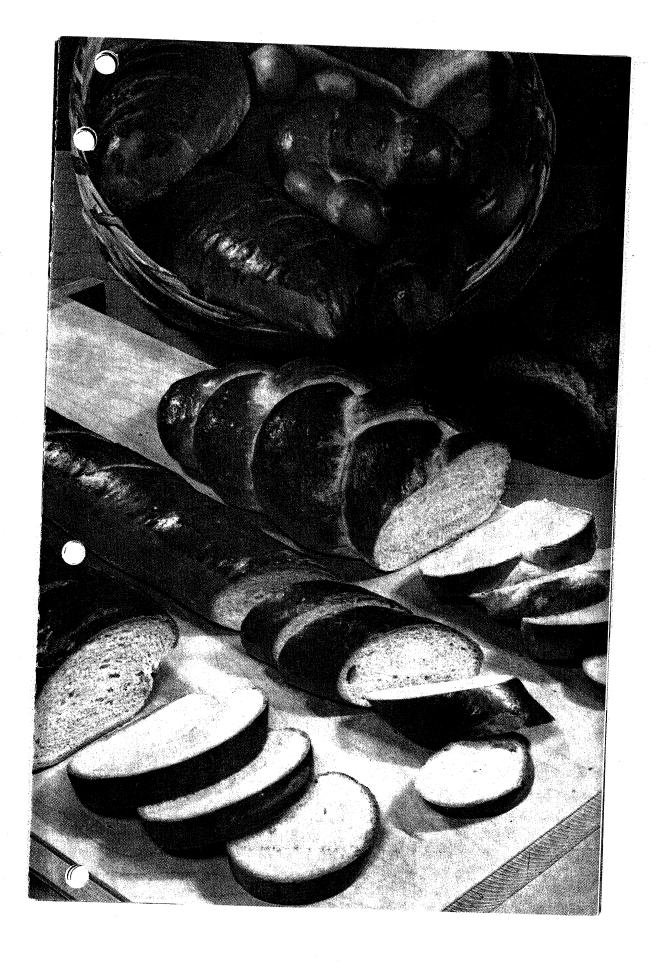
Honey must be heat treated by the producer or packer. Reasons for the heat treatment of honey for baking are these: To delay granulation of honey, to destroy the yeast cells that are always present, and to inhibit enzymes.

Store honey at room temperature. Avoid excessive (over 95°F.) heat. If possible avoid prolonged storage at temperatures below 60°F. Keep the container closed and in a dry place so the honey will not take in moisture from the air and possibly spoil.

Honey that has granulated wholly or in part may be restored to its liquid state by indirect heating. Place the closed container in a water bath, never over an open flame. Mix occasionally until it is liquefied. Exposure to 160°F. should not exceed 30 minutes, though longer times may be used at lower temperatures.

#### **Measuring Honey**

Honey is so thick that it may be difficult to measure. Lightly grease the cup or spoon so the honey will pour more readily. Use a spatula or rubber scraper to insure full measure in the recipe.



# Bread

HONEY is an excellent sweetening agent for bread, improving both the flavor and keeping quality of the product. Basic recipes for white, whole wheat, and rye bread types are given.

Honey may be used for sugar in your own favorite recipes by substituting an equal amount of honey for the sugar. These may be adapted to individual needs or desires. For example, the white bread may be varied in shape or size, or may be used to make cinnamon or raisin bread.

### Tips to the Homemaker

In the home baking of bread, one of the most important considerations is the temperature of the dough during the entire process from the time it is mixed until it is baked. Control the temperature by regulating the temperature of the liquid which is used in the dough. Also consider temperature of

the other ingredients, the equipment, and the room.

Use a tight-fitting plastic cover to keep the dough from crusting.

Mix compressed yeast in water at 75-85°F., or soak active dry yeast for 10 minutes in water at 100-110°F.

#### Honey White Bread

Straight Dough (2 loaves)

2 cups milk

Scald if raw, otherwise warm to 80°F.

3 tablespoons honey

Add to milk. Let stand 10 minutes.

1 cake yeast (or package granular yeast soaked according to directions on package)

2 tablespoons softened shortening

2 teaspoons salt

5 cups flour (all purpose)

Add to milk with enough flour to make a smooth elastic dough. Knead until smooth.

Place dough in a lightly greased deep pan (if pan is cold, warm to body temperature) and cover with a tight plastic cover.

Set for approximately  $2\frac{1}{2}$  hours in warm area (85°F.) or until dough is doubled in bulk.

Divide the dough into two equal pieces, round and allow 10 minutes rest before making into loaves and placing in pans.

Cover loaves with plastic or damp cloth, but do not allow cover to touch the dough.

Allow dough to rise in warm area for 50 to 60 minutes or until it doubles its size and becomes light. Bake in oven at 400°F. for 40 minutes or until golden brown.

#### Honey Whole Wheat Bread

Straight Dough (2 loaves)

2 cups milk

Scald if raw, otherwise warm to 80°F.

Add to milk. Let stand 10 minutes.

3 tablespoons honey

1 cake yeast (or package granular yeast soaked according to directions on package)

11/2 tablespoons shortening

2 teaspoons salt

5 cups whole wheat flour

Add to milk with enough flour to knead into a smooth elastic dough that is relatively dry.

Place dough in lightly greased pan and use a tight plastic cover. After  $2\frac{1}{2}$  hours in warm area (85°F.), divide the dough into two equal pieces, round, and let rest 10 minutes. Make into loaves and place in pans. Brush the tops of the loaves lightly with warm water and cover to prevent crusting. Place in warm area for 50 minutes or until the dough rises about half an inch above top of pan. Bake in oven for 30-35 minutes at 425°F.

#### Honey Rye Bread (Swedish)

(2 loaves)

13/4 to 2 cups milk

Scald if raw, otherwise warm to 80°F.

- 3 tablespoons honey
- 2 tablespoons molasses
- Add to milk. Let stand 10 minutes. 1 cake yeast (or package granular yeast soaked according to directions on package)

1½ tablespoons shortening

- 2 teaspoons salt
- I teaspoon caraway seed
- 4 cups white flour
- 1 cup rye flour

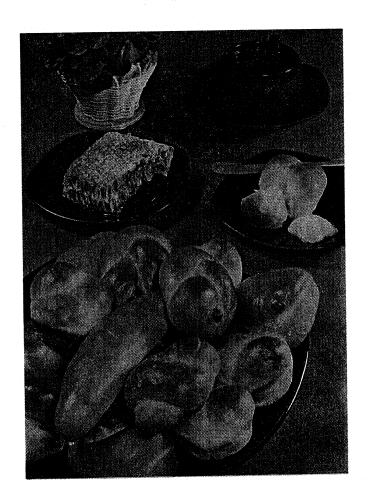
Add to milk with enough flour to make a smooth elastic dough. Knead until smooth and dry. Rye dough should be stiffer than white bread dough.

Place dough in lightly greased deep pan, protect with a tight plastic cover and set in warm place (85°F.) two hours. Divide dough in two equal pieces, round, and let rest 15 minutes before shaping in loaves and placing in pans.

For hearth bread, prepare a lightly greased cookie sheet and sprinkle lightly with corn meal. Place the molded loaves on cookie sheet about five inches apart and put in a warm area away from drafts, and allow to rise. Cover loaves with plastic or damp cloth, but do not allow cover to touch the dough.

After about one-half hour make six cuts, one-fourth inch deep, across the top of each loaf with a sharp knife. Punch about a dozen holes approximately one inch apart down through the loaf with a greased meat skewer or large fork. Both of these operations are to prevent bursting.

When the loaves have doubled in size, wash with a mixture of equal parts of egg white and water, and bake in a 400°F. oven for 45 minutes.



Rolls lend themselves well to the use of honey. Two basic recipes are given to use in making a large variety of plain and sweet rolls. An excellent recipe for roll and coffee cake icing is included.

## Plain Rolls and Sweet

### Tips to the Homemaker

In rolls, as in loaf breads, control the temperature of the dough carefully throughout the process.

Humidity is also important. In dry areas keep the dough and unbaked rolls covered with plastic or a damp cloth.

The following basic sweet dough recipe may be used to

make plain rolls, filled rolls, and coffee cake. The refrigerated dough recipe makes a richer dough than the basic sweet dough recipe and can be used for iced breakfast rolls and coffee cakes. It can be mixed and refrigerated one or two days before needed.

#### **Basic Sweet Dough**

- 1 cup milk
- 3 tablespoons honey
- 11/2 cakes yeast (or package granular yeast soaked according to directions on package)
- 1 tablespoon sugar
- 5 tablespoons softened shortening
- 1 egg
- 1 teaspoon salt
- 3 cups flour (all purpose)

Scald if raw, otherwise warm to 80°F.

Add to milk. Let stand 10 minutes.

Add to milk with enough flour to make a smooth elastic dough. Knead until smooth. Dough temperature should be 85°F.

Place dough in lightly greased deep pan, cover with plastic, and let rise until doubled in bulk (about two hours). Divide into convenient sized pieces and allow a 15 minute rest period. Shape into rolls or coffee cake, as desired. Let dough double in size and bake in a 380°F. oven approximately 20 minutes.

#### For Sweet Rolls and Coffee Cake

#### **CINNAMON FILLING**

- 4 tablespoons sugar 4 tablespoons shortening
- 1/4 teaspoon cinnamon

Mix well together. Soften to spreading consistency with milk or egg whites.

#### ICING

- 1 cup powdered sugar
- 1 tablespoon honey
- 11/2 tablespoons boiling water
- 4 drops flavoring

Mix all ingredients together until smooth. Keep warm (120°F.) until used.

#### Refrigerated Sweet Dough

1/3-1/2 cup cold milk (pasteurized)

- 1 tablespoon honey
- 1½ cakes yeast (or package granular yeast soaked according to directions on package)

Add to milk. Let stand 10 minutes.

2 tablespoons sugar

I teaspoon salt

1/4 cup softened shortening

1 egg

2 cups flour (all purpose)

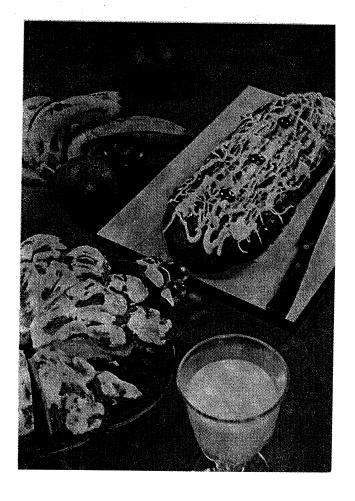
Add to milk with enough flour to stiffen. Knead lightly. Full development of dough is not desired.

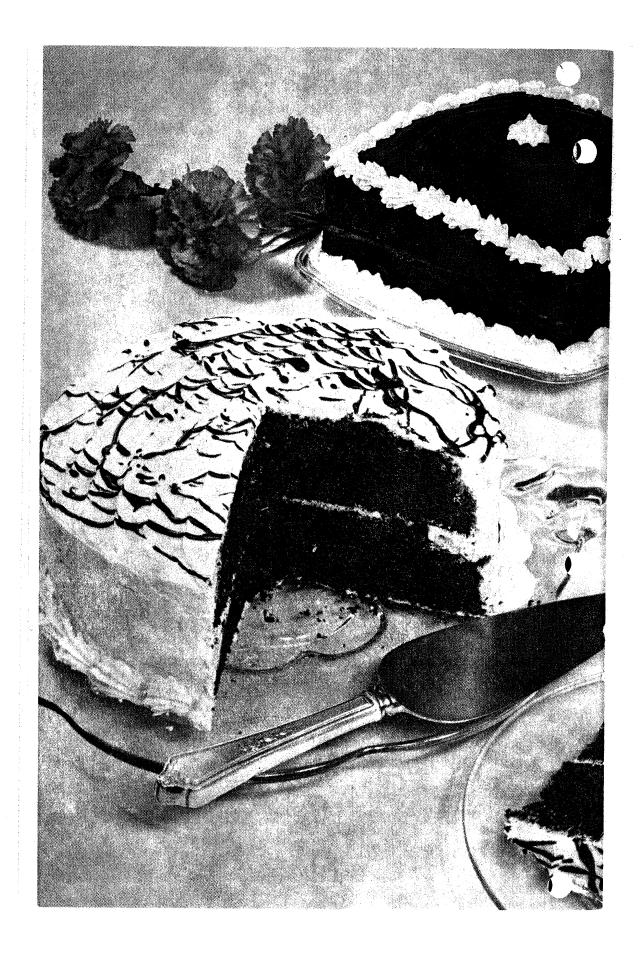
Store in covered bowl or wrap in plastic and place in refrigerator (40°F.) over night.

Shape rolls or coffee cake immediately after removing the dough from the refrigerator, since the dough is soft and difficult to handle when warm. Roll dough on a well floured board. The made-up rolls or coffee cake may be placed on warm pans to hasten rising.

Brush the tops with a warm mixture of equal parts of milk and egg. Set dough in a warm humid area, away from drafts. Cover

with plastic or damp cloth, but do not allow cover to touch rolls. When the dough has doubled in size, place in a 380°F. oven. Rolls usually bake in approximately 20 minutes and coffee cakes in about 25 minutes. Both top and bottom should have a golden brown color when baked.





# Cakes

HONEY greatly enhances the quality of cakes, not only as a sweetening and flavoring agent, but also in retaining the

cake's softness. A small portion of honey also adds greatly to the keeping properties of icings.

### Tips to the Homemaker

Flour measurements shown are for sifted cake flour. The baking powder or other leavening agent is usually sifted with the flour before being added to the mix.

For baking in high altitudes, reduce the amount of leavening agent. At 5,000 feet, for example, reduce the leavening agent by one-third.

In cake mixing, avoid lumps in the batter by withholding part of the liquid and keeping the mixture stiff during the first stages of mixing. Scrape the sides of the mixer bowl frequently.

It may be necessary to adjust the consistency of the cake batters by varying the amount of liquid. The recipes given in the following section do not replace all the sugar because it is difficult to produce a good quality cake using honey for total sweetening. If all of the sugar is replaced with honey, adjustment of the acid in the batter is necessary in order to control crumb browning. This may be done by increasing the baking soda by approximately a fourth teaspoon for each cup of honey used in the recipe.

The batter may be slightly acid but must not be neutral or alkaline.

Prepare layer cake pans by placing circular pieces of paper in them.

Let cakes cool about a halfhour before removing from pans.

#### Honey Fruit Cake

21/2 cups seedless raisins

Soak for 2 hours in just enough water to cover, then drain well.

2 cups mixed candied fruit

Wash to remove excess sugar. Drain

well.

2 cups pecan pieces

1/2 cup shortening (cake type)

3/4 cup sugar

1 teaspoon salt 4 tablespoons honey Mix 5 minutes at low speed.

11/2 cups flour (all purpose)

5 whole eggs

Add to the sugar mixture gradually. Mix until light—about 5 minutes at slow speed. Stir raisins and mixed fruit into batter with spoon, and then fold in the nuts until well blended.

Divide batter evenly in three one-pound loaf cake pans lined with paper. Level the batter in the pan with a spatula. Wet the top slightly with milk, using brush or cloth. Bake at 335°F. for one hour.

Designs may be made on top with pecan halves or blanched almonds before placing in oven.

#### Chocolate Layer Cake

1 cup sugar
6 tablespoons honey
1/2 cup + 1 tablespoon shortening
(cake type)

1 teaspoon salt
1/2 cup flour, cake
6 tablespoons cocoa 2 whole eggs

11/3 cups flour, cake 2 teaspoons soda\*

cup milk 1/2 teaspoon vanilla 1 whole egg

Sift flour and cocoa together. Blend with sugar, honey, shortening, salt, and whole eggs by mixing 5 minutes at slow speed.

Sift together and add to above mixture.

Stir together and add to above ingredients over a 2-minute period. Continue mixing for 2 more minutes at slow speed.

Divide batter evenly in two 9-inch round layer pans lined on the bottom with paper. Bake at 360°F. 30 minutes.

<sup>\*</sup>If a less reddish brown cake is preferred, reduce the soda to one-half teaspoon, and add 2 teaspoons of baking powder.

#### Honey Yellow Layer Cake

1 cup sugar 6 tablespoons honey 1/2 cup shortening i teaspoon salt 2 whole eggs

Mix 5 minutes at slow speed.

2½ cups flour, cake 3½ teaspoons baking powder

Sift together and add all at once.

cup milk

Stir together and add over a 3-minute period. Continue mixing for 2 more minutes at slow speed.

teaspoon vanilla whole egg

Divide batter evenly in two 9-inch round layer pans lined on the bottom with paper. Bake at 360°F. 30 minutes.

#### Honey White Layer Cake

Mix 5 minutes at slow speed.

1 cup sugar 6 tablespoons honey (light colored) 1/2 cup shortening (cake type)

I teaspoon salt 1/4 cup egg whites

Sift together and add.

21/2 cups flour, cake 4½ teaspoons baking powder ½ teaspoon cream of tartar

3/4 cup milk 1 teaspoon almond flavor 1/4 cup egg whites

Stir together. Add over 3-minute period. Continue mixing 2 minutes at slow speed.

Divide batter evenly in two 9-inch layer pans lined on the bottom with paper. Bake at 360°F. 30 minutes.

#### Honey Spice Layer Cake

Cream until smooth at slow speed.

1/2 cup sugar 1/3 cup shortening (cake type)

1/3 teaspoon salt

1/2 teaspoon cloves

Sift together and add to above mixture.

1/2 teaspoon cinnamon 1/2 teaspoon ginger

1/3 teaspoon soda 3 teaspoons baking powder 2 cups cake flour

3 eggs 1/3 cup molasses Add gradually and continue mixing 5 minutes at slow speed.

1/3 cup honey 1/2 cup milk

Stir together and add over 2-minute period. Continue mixing 2 minutes at slow speed.

Divide batter evenly into two 8-inch round layer pans lined on the bottom with paper. Bake at 360°F. 30 minutes.

### Honey Icing

#### Marshmallow

2/3 cup honey

1 teaspoon sugar 2 teaspoons plain gelatin

1/4 cup water

#### Whites of 2 medium size eggs

#### 1/3 cup sifted powdered sugar

Heat honey to 125°F, and place in mixing bowl.

Blend sugar and gelatin.

Bring water to boil, remove from heat, add gelatin-sugar mixture, and stir until dissolved.

Place egg whites in mixing bowl, together with all of the above ingredients, and whip.

Add powdered sugar to mixture when thickening begins and continue to whip to a soft peak.

#### Vanilla Buttercream

2½ cups powdered sugar ½ teaspoon salt 4 tablespoons shortening 3 tablespoons butter 1 egg white 1 tablespoon honey

#### 3-4 teaspoons milk 1 teaspoon vanilla flavoring

Cream sugar and salt with shortening and butter. Blend with egg whites and honey.

Add milk and flavoring. Mix until light at low speed.

#### **Chocolate Buttercream**

13/4 cups powdered sugar 3/4 cup cocoa 1/4 teaspoon salt

3 tablespoons butter 3 tablespoons shortening 1 tablespoon honey 1 egg white

#### 2 tablespoons milk

Sift dry ingredients together and place in mixing bowl with remaining ingredients except milk. Mix until free from lumps.

Add milk and mix at low speed until light.

#### Chocolate Fudge

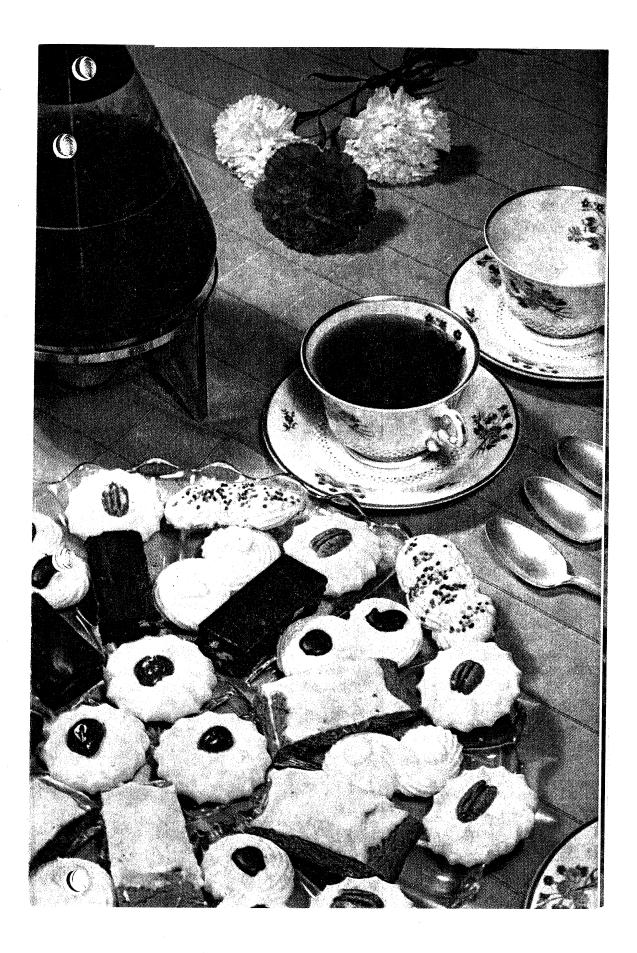
13/4 cups powdered sugar
3/4 cup cocoa
1/4 teaspoon salt
3 tablespoons butter
2 tablespoons shortening (cake type)
11/2 tablespoons honey
1 egg white

#### 2-3 tablespoons hot milk

Have all ingredients at room temperature. Sift dry ingredients together.

Mix in warmed bowl with remainder of ingredients, except milk, until free of lumps.

Add hot milk and mix until smooth. Keep in warm bowl (115°F.) until used, stirring occasionally. Too high a temperature causes icing to lose its shine.



## Cookies

SUBSTITUTING honey for a portion of the sugar in cookie recipes greatly enhances the flavor, color, and general eating quality of cookies. Honey tends to add a chewy quality to cookies. The degree of chewi-

ness desired may be controlled by the quantity of honey added.

Representative types of popular cookies, including crisp and chewy varieties, are given below. Honey may be adapted to many of your own recipes.

### Tips to the Homemaker

Most cookies should be mixed just until ingredients are smooth. Overmixing makes them tough. Consistency of cookie dough may be adjusted by slightly varying the amount of liquid. Cookies usually require more heat on the top than on the bottom. If bottoms come out excessively dark, use double pans. Since cookies continue to bake for about a min-

ute after coming from the oven, remove them before too much color develops.

A small brush is handy to use to brush the flour from the tops of cookies before placing in the oven. It helps to dampen the brush slightly with water.

All flour measurements in the following recipes are based on sifted flour.

#### Sugar Cookies

11/4 cups sugar 2/3 cup shortening 1 tablespoon honey 1 teaspoon salt

31/4 cups sifted all purpose flour 2 teaspoons baking powder

1 egg ½ cup milk, approximately 1 teaspoon vanilla Mix until smooth, slow speed.

Blend, then add to the above ingredients.

Add and mix until smooth at slow speed. Dough should be like soft putty.

Roll dough out to one-fourth inch thick and cut with cookie cutter. Place on lightly-greased cookie sheet. Brush off excess flour with damp brush and sprinkle lightly with sugar. Bake at 375°F. 12 minutes.

#### **Ginger Cookies**

3/4 cup sugar
1/2 cup shortening
1/4 cup honey
1/2 teaspoon salt
1/2 teaspoon soda
1 teaspoon ginger
1/4 cups sifted all purpose flour

Mix together until all lumps disappear.

Mix together until all lumps disappear.

Blend and mix with above ingredients.

1 egg 1/4-1/3 cup milk

Add and mix until smooth; dough same consistency as soft putty.

Roll dough on board to one-fourth inch thick and cut with cookie cutter. Place on lightly-greased cookie sheet, brushing off excess flour with damp brush. Bake at 375°F. 12 minutes.

#### Coconut Macaroon Chips

2 cups brown sugar 1 cup shortening Mix at slow speed until smooth.

1 teaspoon salt 3 teaspoons baking powder  $3\sqrt{2}$  cups flour (cake)

3 whole eggs Add and mix at slow speed.

3 tablespoons honey
3 cups finely chopped, dry coconut

Add and mix at slow speed.

1/3 cup milk Add and mix until all ingredients are uniformly blended.

Roll dough to ¼ inch thick and cut with cookie cutter. Place on lightly-greased pan. Bake at 390°F. 10 minutes. If thin cookie pans are used, place two pans together to prevent too much color on bottom of cookies.

A little extra liquid added to this mix produces a softer dough suitable for drop-type cookies. If this is done, place a sheet of plain paper over cookie sheet and drop walnut-size pieces of dough on paper, using teaspoon or pastry bag. Bake 14 minutes at 380°F.

Remove cookies by wetting the under side of paper with brush or cloth.

#### Fruit Bars

2/3 cup brown sugar 1/2 cup shortening

Mix at slow speed until free of lumps.

3 cups all purpose flour 3/4 teaspoon soda

Sift together and add.

2/3 cup honey 2 whole eggs Add and mix at slow speed until

1/2 teaspoon cinnamon

smooth.

1/2 teaspoon salt

21/4 cups raisins covered with water

Soak 30 minutes, drain, and blend in uniformly.

Divide dough into small balls. Roll to form bars about 2 inches wide and  $\frac{3}{8}$  inch thick. Place on lightly-greased cookie pans. Bake at  $380^{\circ}$ F. 15 minutes.

#### **Brownies**

1 1/4 cups sugar 1/2 cup shortening Mix at slow speed until smooth.

1/2 cup shortening
1/4 cup honey

Add and mix.

1 teaspoon salt

Blend and add.

1½ cups all purpose flour ½ cup cocoa

piena ana aua.

3 eggs

Add gradually and mix 5 minutes at

1½ tablespoons water

slow speed.

1 teaspoon vanilla
1/2 cup pecan pieces

Add and mix until evenly blended.

Spread evenly, about ½ inch thick, over bottom of greased layer pan and bake at 350°F. 45 minutes. Cool well before cutting squares.

#### **Brown Sugar Icebox Cookies**

 $1\frac{1}{2}$  cups brown sugar  $1\frac{1}{2}$  cups white sugar

Mix until smooth at low speed.

1½ teaspoons salt

3/4 teaspoon soda 11/4 cups shortening

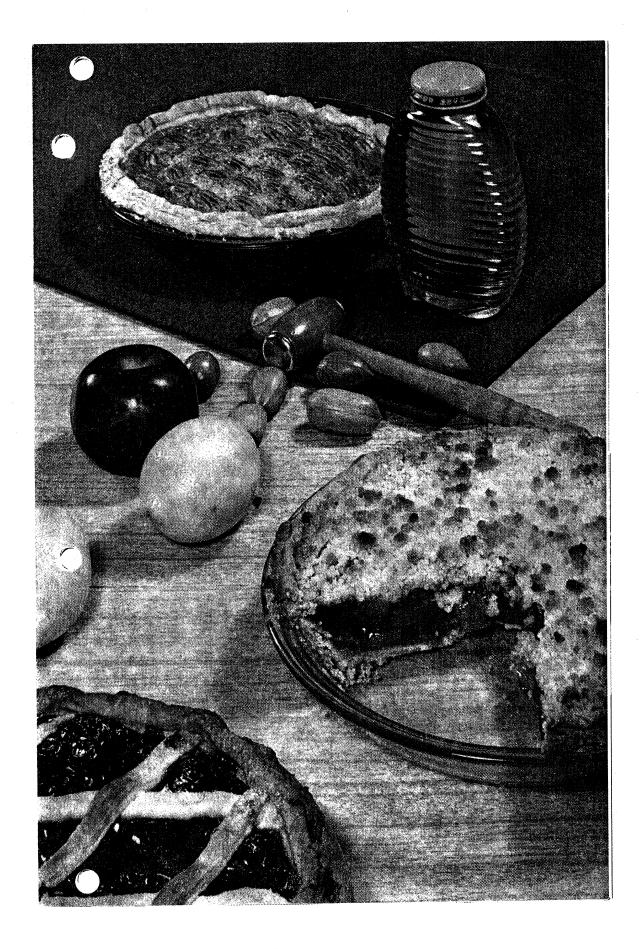
eggs

3 tablespoons honey 1 teaspoon vanilla

5 cups all purpose flour 1/2-1 tablespoon milk

Add and mix well. Dough should be stiff.

Divide into pieces and shape into rolls about  $1\frac{1}{4}$  inches thick. Wrap in wax paper and refrigerate over night. Slice in  $\frac{1}{4}$ -inch pieces and place on lightly-greased cookie sheets. Top cookie with a pecan half and bake at 380°F. 11 minutes.



OF ALL bakery products, fruit pies using honey probably bring out the most natural honey flavor. Fruit pie fillings with honey are easy to make and add variety to the flavor of this popular dessert.



### Tips to the Homemaker

Only the very common fruit pies are presented here, but many other fruit and berry fillings may use honey.

Make pie dough several hours, or even a day before needed. This will minimize shrinkage of the crust. Store at room temperature.

If pie filling is too thick, thin it with a syrup made from equal parts of honey and water boiled one minute. Cool fruit pie filling to room temperature and then chill it in a refrigerator before using it.

After the top has been placed on the pie, brush the center gently with milk and sprinkle lightly with sugar. This improves the crust color and appearance.

#### Pie Dough

5-6 tablespoons milk
1 teaspoon salt
1½ teaspoons honey
2¾ cups all purpose flour
1 cup shortening

Mix milk, salt, and honey until salt dissolves. Cut shortening into flour until entire mass is pea-size pieces. Add all of liquid at once and mix until consistency of mass is uniform. Do not overmix.

Baking temperature for fruit pies with precooked fillings ranges from 425-435°F. With the filling already cooked, the main purpose is to bake the crust. When it reaches a rich brown, remove the pie from the oven before the filling boils. High oven temperatures are necessary to color the crust. Baking time for 8- or 9-inch fruit pies is 25 to 30 minutes.

Baking temperature for pecan pie is 340-350°F. for approximately 35 minutes. Late in the baking stage, the pie will rise around the edges and eventually "crown" in the center. The pie should be removed just before the crown is reached.

All following flour measurements are based on sifted flour.

#### Pineapple Pie Filling

1 cup crushed pineapple (drained)
1/3 cup honey
1/2 cup juice and/or water
1 1/2 tablespoons cornstarch
1 1/2 tablespoons water

Boil pineapple, honey, juice and/or water one minute. Mix starch and remaining water and add to the boiling mixture. Cook until clear. Chill before filling unbaked pie shell.

#### Honey Pecan Pie

cup honey
 eggs
 teaspoon salt
 tablespoon butter (melted)
 teaspoon vanilla

Line 9-inch pie plate with pie dough and crimp edges. Mix all ingredients, thoroughly, just before placing in unbaked pie shell. Fill shell ¾ full with above filling and sprinkle pecan halves uniformly over top. Bake at 350°F. approximately 35 minutes. Remove from oven just before the filling forms a crown in the center.

#### **Apple Pie Filling**

1/2 cup honey
1/4 cup juice and/or water
2 tablespoons cornstarch
2 tablespoons water

cinnamon (to taste)

2 cups drained canned apples
(measure after draining)
(other forms of apples may be used)

Boil honey and liquid one minute. Mix starch and remaining water and add to boiling mixture. Cook until clear. Add drained apples and cinnamon and stir. Chill before using.

#### Struessel Topping for Dutch Apple Pie

3 tablespoons butter
3 tablespoons shortening
3 tablespoons sugar
2 tablespoons honey
1 cup flour (all purpose)
1/4 teaspoon salt
1/4 teaspoon nutmeg

Mix butter, shortening, sugar, and honey until smooth. Add flour, salt, and nutmeg and mix by hand to uniformly-sized crumbs, about the size of small peas.

#### **Cherry Pie Filling**

2 cups cherries, drained (canned or frozen)
1/2 cup juice and/or water
2/3 cup honey
2 tablespoons cornstarch
3 tablespoons water

Place honey and juice into saucepan and boil one minute. Mix starch with water and stir into the boiling honey and juice; continue stirring until a stiff and clear jell results. Remove from the heat and fold in cherries. Cool the filling before using in pies.

#### **Honey Whipped Cream**

Whipped cream long has been used as a filling or topping for such bakery products as cakes, fruit, custard pies, and cream puffs. Adding honey to whipped cream provides the delightful flavor combination needed to excite renewed interest in these fine products. By homogenizing whipping cream with honey, as much as 40 to 50 per cent honey may be used. The resulting whipped cream is firm, stable, and has an excellent honey-cream flavor.

#### 2 parts whipping cream 1 part honey

Heat two parts whipping cream and one part honey to exactly 150°F., stirring gently to prevent separation. The heated mixture should be run through a homogenizing machine twice and then quickly cooled in cold water and stirred occasionally until the temperature reaches about 60°F. Place under refrigeration at 40°F. for 24 hours or until ready to use.

If you do not have a homogenizer...

Dissolve ½ teaspoon gelatin in 1 tablespoon hot water.

Add to 1 cup of cream as it is whipped. Do not overwhip.

Add ½ teaspoon gelatin to 2 tablespoons of honey heated to 150°F.

Fold warm honey gelatin into whipped cream. Place in refrigerator. Use as needed.

